

LIST

LONG ISLAND SINCLAIR TIMEX GROUP
INCORPORATING * NYTSE OF NEW YORK CITY

ISSUE: March 1990

* NEW YORK TIMEX SINCLAIR ENTHUSIASTS: NEXT MEETING.

TS-
2068

APRIL 22
MEETING!!

LIST MEMBERSHIP IS \$15.00. LIBRARY TAPES ARE AVAILABLE, WRITE THE ADDRESS PRINTED BELOW.

SEE PAGE 12
FIRSTLOAD

inside

FOR

NEWS- Hear the latest from Frank Zym and his ZX-81
MEETING LOCATION

FROM ZX/TS TO 2068

L.I.S.T.
5 PERI LANE
VALLEY STREAM, NY
11581

642690



TO:

Don Lambert JAN/91
3310 Clover Dr. S.W.
Cedar Rapids, IA
52404

FIRST CLASS MAIL
DATED MEETING NOTICE

UPPER RIGHT
CORNER OF
YOUR LABEL
IS DATE OF
LAST ISSUE.



----- LIST OFFICERS

PRES. HARVEY RAIT
TRES. ROBERT MALLOY
REC.SEC. STEVE KAYE
EDITOR. FRED STERN
LIBR. TOM SKAPINSKI

PLEASE SEND INQUIRIES TO:

LIST

MR. HARVEY RAIT

5 PERI LANE

VALLEY STREAM, N.Y. 11581

PLEASE SEND SUBMISSIONS TO:

LISTING

MR. FREDERIC STERN

214 ROBERTS ST.

HOLBROOK, N.Y. 11741

NYTSE

NYTSE MEETS THE MONDAY AFTER
THE LIST MEETING AT:
MISS KIMS RESTAURANT
PARK AVENUE SOUTH
BETWEEN 21 ST. AND 22 ST.
MEETINGS START 7:30 PM.

----- COMING EVENTS:

APRIL 22, 1990 LIST MEETING
APRIL 23, 1990 NYTSE MEETING

MEETING MINUTES
MARCH 11, 1990

HARVEY CALLED THE MEETING TO
ORDER AT 2:15 PM.

WE RECEIVED A LETTER ANNOUNCING
A NEW BBS ON LONG ISLAND WHICH
WILL HAVE A CONFERENCE SECTION
FOR TIMEX/SINCLAIR USERS.
A COPY OF THE LETTER IS ON
PAGE 3 OF THIS NEWSLETTER.

HOWARD CHEGWIDDEN (A SOON TO BE
NEW MEMBER) ATTENDED THE
MEETING.

HOWARD CAME FROM N.J. AND HAD
A NUMBER OF EQUIPMENT PROBLEMS.
DURING AN IMPROMPTU THINK TANK
SESSION WE TRIED TO ANSWER
HOWARD'S QUESTIONS, AND RESOLVE
HIS EQUIPMENT PROBLEMS.

HOWARD TOLD US OF 2 BOOKS WHICH
WERE GOOD REFERENCE SOURCES
WHEN WORKING WITH THE ZEBRA
DESIGNER SERIES.
THE PRINT SHOP HANDBOOK
BY RANDI BENTON AND MARY BALGER.

THE PRINT SHOP PROJECT BOOK
BY DEBORAH HOMAN AND PHILIP
SEYER ASSOCIATES.

WE RECEIVED A LETTER ANNOUNCING
THE SINCLAIR COMPUTER EXPOSITION
SPONSORED BY S.M.U.G.
A COPY OF THE LETTER IS AN
PAGE 4.

OUR CONDOLENCES ARE EXTENDED TO
EDGER GROSS ON THE RECENT
PASSING OF HIS MOTHER.

WE RECEIVED NOTICE OF UP COMING
KEN GORDEN COMPUTER SHOWS.
SEE PAGE 12 FOR MORE DETAILS.

DEMONSTRATION

BOB GILDER DEMONSTRATED THE QL
EPROM BURNER. THIS PERIPHERAL
IS A P.C. CARD WHICH PLUGS ON
TO THE QL.
WE WERE SHOWN HOW THE QL
BURNS-IN AND VERIFIED AN EPROM.
THE SYSTEM CAN ALSO COPY PROMS
TO EPROM.
THE QL PROGRAM EVEN HAS A BAR
GRAPH TIMER TO TELL YOU WHEN THE
BURN-IN IS COMPLETED.

HARVEY READ LETTERS WHICH WERE
RECEIVED SINCE THE LAST
MEETING. FRED STERN WILL ANSWER
THESE CORRESPONDENCE.

CLASSIFIEDS

THIS CLASSIFIED SECTION IS
AVAILABLE TO ALL LIST MEMBERS
FREE OF CHARGE.
THE ONLY RESTRICTION IS THAT
IT IS TO BE USED ONLY FOR THE
SEEKING, SELLING OR SWAPPING
OF SINCLAIR, TIMEX OR MICROACE
COMPUTER EQUIPMENT, PERIPHERALS
AND SOFTWARE.
LISTING, LIST, AND ITS OFFICERS
DO NOT ENDORSE, WARRANTY, OR
GUARANTEE ANY OF THE ITEMS
LISTED IN THIS CLASSIFIED
SECTION

I AM INTERESTED IN A DISC.
DRIVE CONTROLLER FOR THE TS1000.
CONTACT FRED STERN AT THE
LISTING ADDRESS ABOVE.

A FINAL WORD

MY NAME IS FRED STERN AND I AM
THE EDITOR OF THIS EDITION OF
LISTING.

THANK YOU GO TO TOM SKAPINSKI
FOR HIS ASSISTANCE.

THE LIST OF NAMES AND ADDRESSES
OF OUR MEMBERSHIP COULD NOT BE
PLACED IN THIS EDITION OF
LISTING AS PREVIOUSLY ANNOUNCED.
IT WILL BE IN NEXT MONTHS
NEWSLETTER.

THE NEXT EDITION OF LISTING WILL
ALSO HAVE THE LONG AWAITED
RESULTS OF OUR QUESTIONNAIRE.
SEE YOU ALL AT THE NEXT MEETING.





7 Atkinson Lane
Coram, NY 11727
March 11, 1990

L.I.S.T.,

Very soon, I will be operating a BBS from my house. Although this BBS is primarily for IBM users, I will also have a separate conference section for Macintosh users, and am willing to have a third conference section for Timex and L.I.S.T.

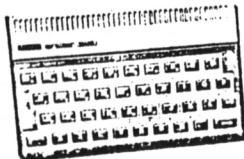
The name of this BBS is "*The Late Night BBS*" (T.L.N. BBS), and, hence its name, will be operating everyday from 10:00pm to 7:00am ET. The BBS is located in Coram, which is in the Western Suffolk calling area.

If you are interested in having a Timex/L.I.S.T. section on this board, please let me know.

Sincerely,

Keith Skapinski
Keith Skapinski

Ph: 516-732-1825



More About This BBS



This BBS will have a general (main) section, plus four conferences. They are *IBM*, *Macintosh*, *Timex/L.I.S.T.*, and *classified ads*. There will be download directories for the IBM, Macintosh, and Timex.

The Timex conference section will be capable of having a news file, bulletins, and a large message base. For those unfamiliar with this, the news file is displayed when a user enters the conference from the main section and usually contains new news or information and is updated fairly often. The bulletins are usually not changed very often. There will also be a message base which can be used for asking and answering questions, carrying on conversations, or sending electronic mail to other users.

Of course, it would not be feasible for me to set up the news files and bulletin files for the Timex conference, so a volunteer from L.I.S.T. would be needed. I would need a typed news file and any bulletins which you want on the BBS. I will enter them into the BBS. Since there is often new news, you can either upload an ASCII news file to me or send me the text in the mail. Please try to limit new news files to no more than one or two a month and update bulletins only when necessary.

If you are interested or having any questions, please call me at 516-732-1825.



S.M.U.G. Presents

The 1990 **SINCLAIR COMPUTER** Exposition

MILWAUKEE

WISCONSIN

June 2 & 3 / Banquet Friday Night June 1
**SEMINARS, DOOR PRIZES, SWAP SHOP,
 SOFTWARE, PERIPHERALS, HARDWARE,
 AND LOTS OF OTHER STUFF**

Location

WAUKESHA HOLIDAY INN (414) 786-0460

Hwy 18 & I94 Waukesha, WI 53186

There will be a **SNUG** meeting Saturday Night June 2, 1990

Ticket Information:

	in advance	at the door	
One day	: \$ 4.00	\$ 5.00	
Both days	: \$ 7.00	\$ 9.00	
Banquet	: \$16.00	\$16.00	Limited seating
Table	: \$25.00 (incl. 2 day badge)	\$25.00	Limited table space

Tables are 6 feet by 30 inches

For **MORE INFORMATION** contact

Bill Heberlein

Neal Schultz

5052 N. 91st Street

or

call 7 - 10pm

Milwaukee, WI 53225

(414) 353-4522



for **RESERVATIONS** mail to:

Expo Reservations

P.O. Box 101

Butler, WI 53007



Detach and Mail

Name _____ Phone (____) _____

Address _____

City _____ State _____ Zip _____

Please reserve _____ one day badge @ \$ 4.00 each = \$ _____

Please reserve _____ two day badges @ \$ 7.00 each = \$ _____

Please reserve _____ Banquet tickets @ \$16.00 each = \$ _____

Please reserve _____ 6' x 30" tables @ \$25.00 each = \$ _____

I have included a check/money order for total = \$ _____

TRY THIS TRY THIS TRY THIS

FIRSTLOADER--FROM ZX/TS TO 2068

Syntax commissioned a custom program, written by David Ornstein, to convert your existing programs for the 2068 or 48K Spectrums.

This program translates input bytes from ZX/TS tapes to an equal number of output bytes in your 2068 that you must edit, and then save. Codes & program control structures differ in the two designs, making functionally identical programs use different numbers of bytes.

Create the program in two parts--the **translation table** shown here and the executable portion.

[illegible]

Direct tables, such as this, consist of an address, derived from the input code, containing an entry that equals a desired output code. Our table address consists of the CODE of the ZX/TS character +44000. Entries consist of 2068 codes to produce the character, command, or function. If no one corresponding code exists, we pick a substitute to hold the space. Then we edit the translated program as needed.

Use the table shown to produce the translator as Syntax tested it. We suggest you fill the table area with code 127 as you begin. That way, listing the table produces (C) symbols if you miss any entries.

You can modify the translation table to substitute any byte. Add 44000 to the ZX/TS character code, then POKE that address in your 2068 with the code you want the program to contain. Codes below 32 trigger errors in the display.

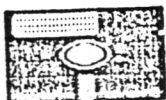
For example, say you want SLOW changed to REM. You take 228, the ZX/TS code for SLOW, add 44000, and POKE 44228,234--the 2068 REM code.

You can enter the executable code in whatever form you find convenient--we've provided both hex and decimal listings--but only the assembler listing is annotated.

Save the 2068 program using
SAVE"FIRSTLOADR"CODE 44000,1250.
Make several copies & VERIFY each.

To use the tape, CLEAR 43999, then LOAD"FIRSTLOADR"CODE (enter). When the 2068 displays 0 OK, 0:1 position your ZX/TS tape in the 5-second quiet spot. Activate the loader by typing RAND USR 45000, and observe the red and black stripes in the border area. Then start the ZX/TS tape and observe the stripes again as they change width, indicating ones and zeros in the incoming data.

You will need a lower volume setting than if you were loading to a ZX/TS from the same recorder. You may find a Winky board eases loading. In some cases a 0.2 uF capacitor in series with the center



conductor of the ear cord and a 1k resistor shunting the 2068 ear jack permits a wider range of volume settings for the ZX/TS tapes.

When the converter finds the end of the VARS area on the tape it switches from load to convert. At completion, your 2068 will display 0 OK, 0:1. LIST your program and look for junk. If your translation looks OK, save it to a 2068 tape before you proceed. If the screen fills with garbage, or you get no listing, or LOADING of the ZX/TS tape stops early, type NEW, then try a different volume setting.

Edit the 2068 version to account for differences in comments and codes. Of course you can also add color functions to the 2068 program thus created.

Not all keywords translate sensibly--check your output list for the following:

Keyword	Action
CHRS	Change char code
CODE	Change compared value
FAST	Delete SPACE
PAUSE 0	Delete or use PAUSE 1
PEEK	Change address
PLOT	Reprogram
POKE	Change address, data
UNPLOT	Reprogram SPACE
USR	Change address
SCROLL	Delete SPACE or use PRINT
SLOW	Delete SPACE
Shift Q	Change SPACE to ""

Also, the program removes all ZX/TS inverse characters, substituting normal characters, and translates the half-tone character graphics to solid blacks of the same shape.

After editing, save the latest updated and enhanced program for use with the 2068.

By modifying the translation table, you can substitute user-defined graphics as you convert.

You can purchase this program on tape for \$19.95 ppd from E-Z Key, Suite 75-STX 711 Southern Artery, Quincy, MA 02169. Call 617/773-1187 to use VISA or MC.

This table shows addresses to POKE, in steps of five, with the values reading left-to-right for the 5 successive locations. POKE them manually or write a loop to advance the address automatically. These decimal codes correspond to the hexadecimal assembly listing on the following pages.

450000	2000	00	175	2000	00
450005	1700	00	7	2005	1100
450010	1000	20	251	2010	0000
450015	1700	20	140	1700	2001
450020	0007	00	00	0000	1000
450025	0017	10	00	0000	0004
450030	0034	10	00	0000	0000
450035	001	170	110	1004	0004
450040	0000	2040	000	1700	200
450045	0000	0000	170	0000	0000
450050	0000	0000	000	0000	1007
450055	0000	0000	000	0000	4000
450060	0000	0000	000	0000	0000
450065	0000	0000	000	0000	0000
450070	0000	0000	000	0000	0000
450075	0000	0000	000	0000	0000
450080	0000	0000	000	0000	0000
450085	0000	0000	000	0000	0000
450090	0000	0000	000	0000	0000
450095	0000	0000	000	0000	0000
450100	0000	0000	000	0000	0000
450105	0000	0000	000	0000	0000
450110	0000	0000	000	0000	0000
450115	0000	0000	000	0000	0000
450120	0000	0000	000	0000	0000
450125	0000	0000	000	0000	0000
450130	0000	0000	000	0000	0000
450135	0000	0000	000	0000	0000
450140	0000	0000	000	0000	0000
450145	0000	0000	000	0000	0000
450150	0000	0000	000	0000	0000
450155	0000	0000	000	0000	0000
450160	0000	0000	000	0000	0000
450165	0000	0000	000	0000	0000
450170	0000	0000	000	0000	0000
450175	0000	0000	000	0000	0000
450180	0000	0000	000	0000	0000
450185	0000	0000	000	0000	0000
450190	0000	0000	000	0000	0000
450195	0000	0000	000	0000	0000
450200	0000	0000	000	0000	0000
450205	0000	0000	000	0000	0000
450210	0000	0000	000	0000	0000
450215	0000	0000	000	0000	0000
450220	0000	0000	000	0000	0000
450225	0000	0000	000	0000	0000
450230	0000	0000	000	0000	0000
450235	0000	0000	000	0000	0000
450240	0000	0000	000	0000	0000
450245	0000	0000	000	0000	0000
450250	0000	0000	000	0000	0000
450255	0000	0000	000	0000	0000
450260	0000	0000	000	0000	0000
450265	0000	0000	000	0000	0000
450270	0000	0000	000	0000	0000
450275	0000	0000	000	0000	0000
450280	0000	0000	000	0000	0000
450285	0000	0000	000	0000	0000
450290	0000	0000	000	0000	0000
450295	0000	0000	000	0000	0000
450300	0000	0000	000	0000	0000
450305	0000	0000	000	0000	0000
450310	0000	0000	000	0000	0000
450315	0000	0000	000	0000	0000
450320	0000	0000	000	0000	0000
450325	0000	0000	000	0000	0000
450330	0000	0000	000	0000	0000
450335	0000	0000	000	0000	0000
450340	0000	0000	000	0000	0000
450345	0000	0000	000	0000	0000
450350	0000	0000	000	0000	0000
450355	0000	0000	000	0000	0000
450360	0000	0000	000	0000	0000
450365	0000	0000	000	0000	0000
450370	0000	0000	000	0000	0000
450375	0000	0000	000	0000	0000
450380	0000	0000	000	0000	0000
450385	0000	0000	000	0000	0000
450390	0000	0000	000	0000	0000
450395	0000	0000	000	0000	0000
450400	0000	0000	000	0000	0000
450405	0000	0000	000	0000	0000
450410	0000	0000	000	0000	0000
450415	0000	0000	000	0000	0000
450420	0000	0000	000	0000	0000
450425	0000	0000	000	0000	0000
450430	0000	0000	000	0000	0000
450435	0000	0000	000	0000	0000
450440	0000	0000	000	0000	0000
450445	0000	0000	000	0000	0000
450450	0000	0000	000	0000	0000
450455	0000	0000	000	0000	0000
450460	0000	0000	000	0000	0000
450465	0000	0000	000	0000	0000
450470	0000	0000	000	0000	0000
450475	0000	0000	000	0000	0000
450480	0000	0000	000	0000	0000
450485	0000	0000	000	0000	0000
450490	0000	0000	000	0000	0000
450495	0000	0000	000	0000	0000
450500	0000	0000	000	0000	0000
450505	0000	0000	000	0000	0000
450510	0000	0000	000	0000	0000
450515	0000	0000	000	0000	0000
450520	0000	0000	000	0000	0000
450525	0000	0000	000	0000	0000
450530	0000	0000	000	0000	0000
450535	0000	0000	000	0000	0000
450540	0000	0000	000	0000	0000
450545	0000	0000	000	0000	0000
450550	0000	0000	000	0000	0000
450555	0000	0000	000	0000	0000
450560	0000	0000	000	0000	0000
450565	0000	0000	000	0000	0000
450570	0000	0000	000	0000	0000
450575	0000	0000	000	0000	0000
450580	0000	0000	000	0000	0000
450585	0000	0000	000	0000	0000
450590	0000	0000	000	0000	0000
450595	0000	0000	000	0000	0000
450600	0000	0000	000	0000	0000
450605	0000	0000	000	0000	0000
450610	0000	0000	000	0000	0000
450615	0000	0000	000	0000	0000
450620	0000	0000	000	0000	0000
450625	0000	0000	000	0000	0000
450630	0000	0000	000	0000	0000
450635	0000	0000	000	0000	0000
450640	0000	0000	000	0000	0000
450645	0000	0000	000	0000	0000
450650	0000	0000	000	0000	0000
450655	0000	0000	000	0000	0000
450660	0000	0000	000	0000	0000
450665	0000	0000	000	0000	0000
450670	0000	0000	000	0000	0000
450675	0000	0000	000	0000	0000
450680	0000	0000	000	0000	0000
450685	0000	0000	000	0000	0000
450690	0000	0000	000	0000	0000
450695	0000	0000	000	0000	0000
450700	0000	0000	000	0000	0000
450705	0000	0000	000	0000	0000
450710	0000	0000	000	0000	0000
450715	0000	0000	000	0000	0000
450720	0000	0000	000	0000	0000
450725	0000	0000	000	0000	0000
450730	0000	0000	000	0000	0000
450735	0000	0000	000	0000	0000
450740	0000	0000	000	0000	0000
450745	0000	0000	000	0000	0000
450750	0000	0000	000	0000	0000
450755	0000	0000	000	0000	0000
450760	0000	0000	000	0000	0000
450765	0000	0000	000	0000	0000
450770	0000	0000	000	0000	0000
450775	0000	0000	000	0000	0000
450780	0000	0000	000	0000	0000
450785	0000	0000	000	0000	0000
450790	0000	0000	000	0000	0000
450795	0000	0000	000	0000	0000
450800	0000	0000	000	0000	0000
450805	0000	0000	000	0000	0000
450810	0000	0000	000	0000	0000
450815	0000	0000	000	0000	0000
450820	0000	0000	000	0000	0000
450825	0000	0000	000	0000	0000
450830	0000	0000	000	0000	0000
450835	0000	0000	000	0000	0000
450840	0000	0000	000	0000	0000
450845	0000	0000	000	0000	0000
450850	0000	0000	000	0000	0000
450855	0000	0000	000	0000	0000
450860	0000	0000	000	0000	0000
450865	0000	0000	000	0000	0000
450870	0000	0000	000	0000	0000
450875	0000	0000	000	0000	0000
450880	0000	0000	000	0000	0000
450885	0000	0000	000	0000	0000
450890	0000	0000	000	0000	0000
450895	0000	0000	000	0000	0000
450900	0000	0000	000	0000	0000
450905	0000	0000	000	0000	0000
450910	0000	0000	000	0000	0000
450915	0000	0000	000	0000	0000
450920	0000	0000	000	0000	0000
450925	0000	0000	000	0000	0000
450930	0000	0000	000	0000	0000
450935	0000	0000	000	0000	0000
450940	0000	0000	000	0000	0000

AFC8	00100	ORG	45000
AFC8 CD3CB0	00110	CALL	FNAME
AFCB CDDEAF	00120	CALL	LOADER
AFCE 0607	00130	LD	B,7
AFD0 3676	00140 INCASE	LD	(HL),118; ZX/TS NL
AFD2 23	00150	INC	HL
AFD3 10FB	00160	DJNZ	INCASE
AFD5 CD59B0	00170	CALL	XLATE
AFD8 CD8EB0	00180	CALL	MAKPRG
AFDB C9	00190	RET	
AFDC CF	00200 ERR3	RST	8
AFDD 03	00210	DEFB 3	
C014	00220 E1LINE	EQU	49172; ZX/TS E-LINE + 32K
C015	00230 E2LINE	EQU	49173
AFDE 2109C0	00240 LOADER	LD	HL,49161; ZX/TS VERSN + 32K
AFE1 110C00	00250	LD	DE,12
AFE4 19	00260	ADD	HL,DE ; SKIP 12 BYTES HL PT 49173
AFE5 36FE	00270	LD	(HL),00FEH; LOAD AT LEAST 256 BYTES
AFE7 A7	00280	AND	A
AFE8 ED52	00290	SBC	HL,DE
AFEA CDFBAF	00300 LL36	CALL	INBYTE ; GET BYTE IN C
AFED 71	00310	LD	(HL),C ; STORE THE ZX/TS BYTE
AFEE 7C	00320	LD	A,H
AFEF FE00	00330	CP	0
AFF1 28E9	00340	JR	Z,ERR3
AFF3 CD4BB0	00350	CALL	EFIX ; IF HL=E2LINE ADD 128 TO HI
AFF6 CD2EB0	00360	CALL	ENDBYT ; BYTE (IND HL). LAST BYTE?
AFF9 18EF	00370	JR	LL36
AFFB 0E01	00380 INBYTE	LD	C,1
AFFD 0600	00390 LL3	LD	B,0
AFFF CD44B0	00400 LL32	CALL	BORDER ; FLIP COLOR
B002 3E7F	00410	LD	A,007FH
B004 DBFE	00420	IN	A,(00FEH)
B006 1F	00430	RRA	
B007 3031	00440	JR	NC,LL7 ; IF BREAK IS PRESSED
B009 17	00450	RLA	
B00A 17	00460	RLA	
B00B 17	00470	RLA	
B00C 3802	00480	JR	C,LL38 ; IF HAVE A SIGNAL
B00E 18EF	00490	JR	LL32
B010 D5	00500 LL38	PUSH	DE
B011 1E94	00510	LD	E,148
B013 061A	00520 LL4	LD	B,26
B015 1D	00530 LL5	DEC	E
B016 DBFE	00540	IN	A,(00FEH)
B018 17	00550	RLA	
B019 17	00560	RLA	
B01A CB7B	00570	BIT	7,E
B01C 7B	00580	LD	A,E
B01D 38F4	00590	JR	C,LL4
B01F 10F4	00600	DJNZ	LL5
B021 D1	00610	POP	DE
B022 2004	00620	JR	NZ,LL6
B024 FE56	00630	CP	86
B026 30D5	00640	JR	NC,LL3



LIST. LIST.

B028	3F	00650	LL6	CCF	
B029	CB11	00660		RL	C
B02B	30D0	00670		JR	NC,LL3
B02D	C9	00680		RET	
B02E	23	00690	ENDBYT	INC	HL ; WAS THAT THE LAST BYTE?
B02F	EB	00700		EX	DE,HL
B030	2A14C0	00710		LD	HL,(E1LINE); IS HL PAST IND E1LINE?
B033	37	00720		SCF	
B034	ED52	00730		SBC	HL,DE
B036	EB	00740		EX	DE,HL
B037	D0	00750		RET	NC
B038	C1	00760		POP	BC ; GO BACK TO MAIN ROUTINE
B039	C9	00770		RET	
B03A	CF	00780	LL7	RST	8
B03B	0C	00790		DEFB	12
B03C	CDFBAF	00800	FNAME	CALL	INBYTE ; LOOK FOR 1ST INVERSE CHAR
B03F	CB79	00810		BIT	7,C
B041	28F9	00820		JR	Z,FNAME; KEEP LOOKING
B043	C9	00830		RET	; NOW START LOADING ZX CODE
B044	78	00840	BORDER	LD	A,B ; FLIP BORDER COLOR 2 OR 0
B045	EE02	00850		XOR	2
B047	D3FE	00860		OUT	(00FEH),A
B049	47	00870		LD	B,A
B04A	C9	00880		RET	
B04B	1115C0	00890	EFIX	LD	DE,E2LINE; DID I JUST LOAD TO E2LINE
B04E	7A	00900		LD	A,D
B04F	BC	00910		CP	H ; COMPARE HI BYTE
B050	C0	00920		RET	NZ
B051	7B	00930		LD	A,E
B052	BD	00940		CP	L ; COMPARE LO BYTE
B053	C0	00950		RET	NZ
B054	7E	00960		LD	A,(HL)
B055	C680	00970		ADD	A,128 ; ADD 32K
B057	77	00980		LD	(HL),A
B058	C9	00990		RET	
B059	217DC0	01000	XLATE	LD	HL,49277; 1ST BYTE OF 1ST LINE #
B05C	7E	01010	LXL1	LD	A,(HL) ; AT 16509+32K
B05D	FE76	01020		CP	118 ; IS IT 1ST NL IN ZX D-FILE
B05F	C8	01030		RET	Z ; IF SO, YOU'RE DONE
B060	CD65B0	01040		CALL	LINE
B063	18F7	01050		JR	LXL1
B065	110400	01060	LINE	LD	DE,4 ; SKIP LINE # & LENGTH
B068	19	01070		ADD	HL,DE
B069	3E7F	01080	LLIN1	LD	A,007FH ; TEST BREAK ON 2068
B06B	DBFE	01090		IN	A,(00FEH); GET CHAR IN ACCUM
B06D	1F	01100		RRA	
B06E	30CA	01110		JR	NC,LL7 ; EXIT IF BREAK PRESSED
B070	7E	01120		LD	A,(HL) ; GET BYTE
B071	FE7E	01130		CP	126 ; CHECK FOR ZX/TS SLUG
B073	2008	01140		JR	NZ,LLIN2; GET CODE FROM TABLE
B075	360E	01150		LD	(HL),14 ; SUBST 2068 SLUG
B077	110600	01160		LD	DE,6 ; SKIP SLUG + 5 BYTES
B07A	19	01170		ADD	HL,DE
B07B	18EC	01180		JR	LLIN1 ; DO IT AGAIN

B07D E5	01190	LLIN2	PUSH	HL	; STORE THE BYTE ADDRESS
B07E 11E0AB	01200		LD	DE,44000;	TABLE START ADDRESS
B081 2600	01210		LD	H,0	; PUT ZX/TS CHAR CODE IN HL
B083 6F	01220		LD	L,A	
B084 19	01230		ADD	HL,DE	; ADDRESS OF BYTE IN TABLE
B085 7E	01240		LD	A,(HL)	; GET BYTE FROM TABLE TO A
B086 E1	01250		POP	HL	; RECALL BYTE ADDRESS
B087 77	01260		LD	(HL),A	; PUT NEW CODE IN OLD ADDRESS
B088 23	01270		INC	HL	
B089 FE0D	01280		CP	13	; CHECK FOR 2068 NL
B08B 20DC	01290		JR	NZ,LLIN1;	NO, DO IT AGAIN
B08D C9	01300		RET		; FINISHED THAT LINE
B08E 117DC0	01310	MAKPRG	LD	DE,49277;	APPEND PROG TO 2068 CONTENT
B091 A7	01320		AND	A	
B092 ED52	01330		SBC	HL,DE	; HL PT 1ST BYTE OF D-FILE
B094 44	01340		LD	B,H	; BC = NO. BYTES IN PROGRAM
B095 4D	01350		LD	C,L	
B096 C5	01360		PUSH	BC	; SAVE SIZE OF PROG
B097 2A4B5C	01370		LD	HL,(23627);	ADDRESS OF 2068 VARS
B09A 2B	01380		DEC	HL	
B09B ED5B535C	01390		LD	DE,(23635);	ADDR OF 2068 BASIC PROG
B09F D5	01400		PUSH	DE	; SAVE PROG SYSVAR
B0A0 CDBB12	01410		CALL	4795	; CALL ROM INSERT-USE 5717 ON
B0A3 D1	01420		POP	DE	; SPECT-RESTORE PROG SYSVAR
B0A4 ED53535C	01430		LD	(23635),DE	
B0A8 C1	01440		POP	BC	; BYTE COUNT OF PROG
B0A9 23	01450		INC	HL	
B0AA 23	01460		INC	HL	
B0AB EB	01470		EX	DE,HL	; DE=DATA DESTINATION
B0AC 217DC0	01480		LD	HL,49277;	START OF STUFF TO MOVE
B0AF EDB0	01490		LDIR		; BLOCK MOVE
B0B1 C9	01500		RET		

BORDER B044	00840	00400	LL36	AFEA	00300	00370
E1LINE C014	00220	00710	LL38	B010	00500	00480
E2LINE C015	00230	00890	LL4	B013	00520	00590
EFIX B04B	00890	00350	LL5	B015	00530	00600
ENDBYT B02E	00690	00360	LL6	B028	00650	00620
ERR3 AFDC	00200	00340	LL7	B03A	00780	00440 01110
FNAME B03C	00800	00110 00820	LLIN1	B069	01080	01180 01290
INBYTE AFFB	00380	00300 00800	LLIN2	B07D	01190	01140
INCASE AFD0	00140	00160	LOADER	AFDE	00240	00120
LINE B065	01060	01040	LXL1	B05C	01010	01050
LL3 AFFD	00390	00640 00670	MAKPRG	B08E	01310	00180
LL32 AFFF	00400	00490	XLATE	B059	01000	00170

Only one change will make this program work with a 48K Spectrum as well. At B0A0H (45216 decimal), we call a ROM routine located at 4795 in the TS2068 and at 5717 in the Spectrum. These routines create an empty space, but you must fill it.

Most of this code is self-contained. Only the routine XLATE, located at 45145, passes a value to the code for MAKPRG. If you modify code, restore the value held in HL on return from address 45151 prior to calling MAKPRG.

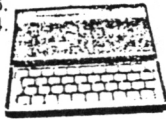


NEWS-MONGER

Hear the latest from
Frank Zym
and his
ZX-81.

NEWSMONGER is a menu-driven program for the ZX-81 16K to show a text in giant letters. The menu has nine options:

- Character size 8 by 8.
- Character size 16 by 16.
- Character size 16 by 24.
- User-defined graphics.
- Fill character.
- Speed.
- Input text.
- Top line number.
- Save.



The almost entirely Basic program uses a machine-code routine held in line 0. The machine code is only 576 bytes long. The text may contain unshifted characters, inverse — shifted — function — and graphics.

The function characters plus the shifted character H represent the lower case characters. The shifted characters A, S, D, F, G, W, E, R, T, Y, 2, 3 and 4 are reserved for user defined graphics — UDGs. You can define eg., the character "!" and its inverse, which do not belong to the standard character set. When you don't like the lower case character

set, you are also able to alter this.

In total you have 26 + 13 UDG's. You can't alter the "shifted" character Q because this character is used in string input. When you are not familiar with UDG's, read the article in *Your Computer* April 1984.

The data of the standard ZX-81 character set begin in the Rom at address \$1E00 (7680 dec.) and end at address \$1FFF (8191 dec.) Only the data of the characters with code 0-63 are in the Rom.

The data of the UDGs begin at address 16760; it starts with the data of the "shifted" character Q — code 192. Then the data of the "function" characters with code 193-215, followed by the "shifted" characters with code 216-229. The data of the "function" characters M, B and T with code 64-66 are placed after the "shifted" characters.

You have the option to alter the fill character of the giant letter, the speed and the top line number. The fill character can be a "unshifted" character, a inverse — or a



graphic. Address 16690 holds the code.
PEEK(16751)/2-1

gives you the speed on a scale 0-9; 0 is fast, 9 is slow. 5 is the most "readable" speed. The top line number can vary for option 1 from 1-17, for option 2 from 1-9 and for option 3 the top line number will be 1. The program checks for invalid values.

There are different ways to save text. First you can run the program and enter your text in option 7:

"TEXT" N/L ZS

holds your text. Returning to option 7 and typing new text the old text is rubbed out. To prevent the loss of the old string variable Z\$, you have to break out during input mode by

(continued on next page)

Hexdump.

```

16514: 0000000000000000 = 0
16522: 3F0D218A40221640 = 431
16530: CD1C11234E234623 = 503
16538: C5E5CDBB022CE1C1 = 1282
16546: C0C5E57EFE40280A = 1112
16554: FE412806FE422802 = 727
16562: 180306A680322140 = 474
16570: CBBF060816005F21 = 558
16578: 00001910FD3A2140 = 449
16586: FEC0380511783F18 = 731
16594: 0311001E19CDEA40 = 578
16602: E123C10D20BA78FE = 1058
16610: 0028A7050E0018B0 = 426
16618: E5118240D5010800 = 662
16626: EDB03A2140CB7F28 = 938
16634: 0FCB77200B118240 = 591
16642: 06081A2F121310FA = 390
16650: 0E080608C506012A = 282
16658: 0C40112200ED5211 = 463
16666: 21001910FAC1227B = 674
16674: 4011210019D11ACB = 577
16682: 7F171213D528033E = 505
16690: 807710EDD1C50601 = 913
16698: C52A3440CB4520F9 = 908
16706: CD5641CD6D41C110 = 944
16714: EFC10D118240D520 = 901
16722: B9D1E1C92A7B4023 = 1084
16730: 233E08545D23011F = 349
16738: 00EDB02B7023233D = 699
16746: C818F021A00C2B7C = 836
16754: B520FBC905050024 = 711
16762: 2400000000000000 = 36
16770: 3E4040403E000000 = 316
16778: 7C42427C40400505 = 518
16786: 0505050505050006 = 38
16794: 0008080808000004 = 36

```

```

16802: 0004040404380020 = 104
16810: 2438242222000000 = 196
16818: 3E42423E00200000 = 260
16826: 4949494936000000 = 348
16834: 3C427C403C000000 = 374
16842: 3C023E423E000000 = 252
16850: 3C403C023C000002 = 248
16858: 023E42423E000000 = 258
16866: 3E0408103E000000 = 152
16874: 2214081422000000 = 116
16882: 3E20202020000040 = 254
16890: 407C42424200000E = 400
16898: 107C101010000000 = 188
16906: 3E42423E023C0000 = 318
16914: 3C4242423C000020 = 350
16922: 202020201C000000 = 156
16930: 2222120C04180000 = 126
16938: 222222221E000000 = 168
16946: 3C22222222000000 = 196
16954: 2222221408000600 = 258
16962: 00000000000000E0 = 224
16970: E0000000000000F0 = 704
16978: F07E7E7E7E000505 = 754
16986: 0505050505050505 = 40
16994: 0505050505050000 = 30
17002: 0000000000000000 = 224
17010: 0505050505050505 = 40
17018: 0505050505050010 = 46
17026: 1010100010000505 = 74
17034: 0505050505050024 = 66
17042: 0024242404380505 = 178
17050: 0505050505050505 = 40
17058: 0505050505050010 = 46
17066: 7C1010100E000040 = 250
17074: 407C42427C000000 = 444
17082: 7649494949000505 = 420

```


(continued from previous page)

rubbing out the first quote and then press "shifted" A N/L. Then you type:

LET AS = Z\$ N/L

and the old text is saved in the variables area. You return to the Basic program by typing:

GOTO O/N/L

Do not use the command Run because this command will also clear the variables area, and that is what you don't want!

Second: you can break out during input mode to enter different string variables. You can use the string variables A\$-X\$ and subscripted string variables with no limitations.

You can rub out the quotes

Do not use Y\$ and Z\$ because the program uses these string variables. You can type eg.: LET AS = "TEXT" N/L, LET BS = "TEXT" N/L, DIM AS(10,10) N/L, LET AS(1) = "TEXT" N/L

You return to the menu by typing:

—GOTO O/N/L

When you return to option 7, you can rub out the quotes and type eg.:

AS + BS N/L

strings which you have entered before. Z\$ holds then

AS + BS

You can also type: Text, jump over the quote and type:

+ AS N/L

Z holds then

"TEXT" + AS

When you want to save on tape the string variables or your UDGs, option 9 gives you the opportunity. After typing: 9 N/L during menu mode, the program waits for pressing a key. It gives you the time to set up the tape recorder.

When you want to break out the machine code routine during option 1-3, just press a key a while. It is advisable not to use the "break" key because then you also break out the Basic program. Then it is a habit to type: Run N/L, but then you will clear the variables

Hexloader.

```
99 REM HEX LOADER
100 PRINT "START ADDRESS"
110 INPUT S
120 PRINT "FINISH ADDRESS"
130 INPUT F
140 FOR N=3 TO F STEP 8
150 LET T=0
160 PRINT N;" - ";
170 INPUT AS
180 PRINT AS;" = ";
190 INPUT TOT
200 PRINT TOT
210 LET Z=0
220 FOR K=1 TO LEN AS STEP 2
230 LET C=(CODE AS(K)-28)*16+CD
240 AS(K+1)-28
250 POKE N+Z,C
260 LET Z=Z+1
270 NEXT K
280 IF TOT=T THEN GO TO 310
290 PRINT "ERROR - PLEASE INPUT AGAIN"
300 GO TO 150
310 NEXT N
```

area. Use always the command Goto O, and you will get the menu again with the variables still present.

Before you can enter the machine code, you have to make a line with a Rem containing at least 576 bytes. To create this Rem first enter line 1 with a Rem containing 91 dots. Check the number with

PEEK(16511) + PEEK(16512) x 256

The number must be 93:

REM + 91 dots + N/L

Then using the Edit alter the line number so that you become 6 lines with 91 dots. Then type:

POKE 16514,118 N/L

POKE 16515,118 N/L

POKE 16510,0 N/L

POKE 16511,66 N/L

and you have created line 0 with a Rem containing 567 bytes.

PEEK(16514 + 576)

must be 118, check this! Then enter the Basic program hexload. The startaddress is 16514, the endaddress 17089. Save the program on tape after entering the hexadecimal numbers. Then enter:

LET Z\$ = "TEXT" N/L, LET L = USR 16524 N/L

and the program should run. Pressing a key while will bring you back to Basic. When the program doesn't work, check the addresses 16514-17089.

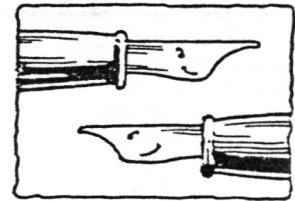
Basic program.

```
1 REM *****
2 REM + (C) FRANS ZIJM
3 REM + NEUSMONGER
4 REM *****
5 SLOW
6 PRINT "MENU"
7 PRINT "A CHARACTER SIZE 8x8"
8 PRINT "B CHARACTER SIZE 16x"
9 PRINT "C CHARACTER SIZE 16x"
10 PRINT "D USER DEFINED GRAPH"
11 PRINT "E FILL CHARACTER"
12 PRINT "F SPEED"
13 PRINT "G INPUT TEXT"
14 PRINT "H TOP LINE NUMBER"
15 PRINT "I SAVE"
16 PRINT "J AT 21.0: SUB OPTION"
17 DIM Y$(1)
18 INPUT Y$
19 IF Y$="1" OR Y$="9" THEN GO
20 TO 150
21 CLS
22 IF Y$="9" THEN GOTO 9000
23 POKE 16511,66
24 POKE 16512,118
25 LET L=USR 16524
26 RETURN
27 POKE 16511,66
28 POKE 16512,118
29 IF PEEK 16511>9 THEN POKE 1
30 6555
31 POKE 16511,16
32 LET L=USR 16524
33 RETURN
34 POKE 16511,2
35 POKE 16512,99
36 POKE 16513,1
37 POKE 16514,24
38 LET L=USR 16524
39 RETURN
40 PRINT "YOU CAN DEFINE YOUR
41 OWN GRAPHIC."
42 PRINT "FOR UDG ARE THE ""SH
43 IFTED""
44 PRINT "CHARACTERS A,S,D,F,G
45 U,E,R,T,Y."
46 PRINT "2,3 AND 4 AVAILABLE.Y
47 OU CAN ALSO""
48 PRINT "ALTER THE LOWER CASE
49 CHARACTERS."
50 PRINT "THEREFOR ARE THE ""F
51 UNCTION"" CHA
52 4060 PRINT "RACTERS PLUS ""SHIFT
53 ED"" H.THE ""
54 4070 PRINT "EMPTY STRING WILL RE
55 TURN YOU TO ""THE MENU.""
56 4080 PRINT "AT 21.0: ""SUB-OPTION
57 4090 PRINT "
58 4100 PRINT "
59 4110 DIM Y$(1)
```

```
4120 INPUT Y$
4130 IF Y$="" THEN RETURN
4140 IF Y$="INKEY$" OR Y$="PI" O
4150 R Y$="AND" THEN GOTO 4160
4160 IF Y$="AT" THEN GOTO 4100
4170 CLS
4180 LET S=0
4190 IF Y$="INKEY$" OR Y$="PI" O
4200 R Y$="AND" THEN LET S=166+8
4210 LET S=S+15224+CODE Y$+8
4220 PRINT "INPUT P FOR A BLACK
4230 SQUARE.THE"
4240 PRINT "EMPTY STRING FOR A S
4250 PACE A DOT"
4260 PRINT "WILL MARK THE PLACE.
4270 INPUT O AT"
4280 PRINT "THE BEGINNING OF A L
4290 INE WILL"
4300 PRINT "PLACE 8 SPACES IN TH
4310 E LINE."
4320 FOR I=1 TO 8
4330 PRINT TAB I;I:
4340 NEXT I
4350 PRINT
4360 FOR I=0 TO 7
4370 PRINT I+1:
4380 LET T=0
4390 FOR J=7 TO 0 STEP -1
4400 INPUT Y$
4410 IF J=7 AND Y$="0" THEN PRIN
4420 T ""
4430 IF J=7 AND Y$="0" THEN GOTO
4440 4120
4450 IF Y$="P" THEN LET T=T+2+J
4460 IF Y$="P" THEN LET Y$=""
4470 IF Y$=" " THEN LET Y$=""
4480 IF Y$=" " AND Y$="" THEN
4490 GOTO 4330
4500 PRINT Y$;
4510 NEXT J
4520 POKE S+I T
4530 PRINT
4540 NEXT I
4550 RETURN
4560 PRINT "YOU CAN FILL THE GIRA
4570 NT LETTER""
4580 PRINT "WITH A CHARACTER OF
4590 YOUR CHOICE""
4600 PRINT "THE PRESENT FILL CHA
4610 RACTER"" CHR$(PEEK 16590)""
4620 PRINT "THE EMPTY STRING WILL
4630 L NOT ALTER""
4640 PRINT "THE CHARACTER."
4650 PRINT "AT 21.0: ""SUB-OPTION"
4660 DIM Y$(1)
4670 INPUT Y$
4680 IF Y$="" THEN RETURN
4690 IF Y$="Z" AND Y$="" OR Y$=""
4700 THEN GOTO 5070
4710 POKE 16590,CODE Y$
4720 RETURN
4730 PRINT "YOU CAN ALTER THE SP
4740 EED.THE ""
4750 6010 PRINT "PRESENT SPEED ON A S
4760 CALE 0-9"" PEEK 16511/2-1: ""
4770 6020 PRINT "THE EMPTY STRING WILL
4780 L NOT ALTER""
4790 PRINT "THE NUMBER."
4800 PRINT "AT 21.0: ""SUB-OPTION"
4810 PRINT "
4820 PRINT "
4830 PRINT "
4840 PRINT "
4850 PRINT "
4860 PRINT "
4870 PRINT "
4880 PRINT "
4890 PRINT "
4900 PRINT "
4910 PRINT "
4920 PRINT "
4930 PRINT "
4940 PRINT "
4950 PRINT "
4960 PRINT "
4970 PRINT "
4980 PRINT "
4990 PRINT "
5000 PRINT "
5010 PRINT "
5020 PRINT "
5030 PRINT "
5040 PRINT "
5050 PRINT "
5060 PRINT "
5070 PRINT "
5080 PRINT "
5090 PRINT "
5100 PRINT "
5110 PRINT "
5120 PRINT "
5130 PRINT "
5140 PRINT "
5150 PRINT "
5160 PRINT "
5170 PRINT "
5180 PRINT "
5190 PRINT "
5200 PRINT "
5210 PRINT "
5220 PRINT "
5230 PRINT "
5240 PRINT "
5250 PRINT "
5260 PRINT "
5270 PRINT "
5280 PRINT "
5290 PRINT "
5300 PRINT "
5310 PRINT "
5320 PRINT "
5330 PRINT "
5340 PRINT "
5350 PRINT "
5360 PRINT "
5370 PRINT "
5380 PRINT "
5390 PRINT "
5400 PRINT "
5410 PRINT "
5420 PRINT "
5430 PRINT "
5440 PRINT "
5450 PRINT "
5460 PRINT "
5470 PRINT "
5480 PRINT "
5490 PRINT "
5500 PRINT "
5510 PRINT "
5520 PRINT "
5530 PRINT "
5540 PRINT "
5550 PRINT "
5560 PRINT "
5570 PRINT "
5580 PRINT "
5590 PRINT "
5600 PRINT "
5610 PRINT "
5620 PRINT "
5630 PRINT "
5640 PRINT "
5650 PRINT "
5660 PRINT "
5670 PRINT "
5680 PRINT "
5690 PRINT "
5700 PRINT "
5710 PRINT "
5720 PRINT "
5730 PRINT "
5740 PRINT "
5750 PRINT "
5760 PRINT "
5770 PRINT "
5780 PRINT "
5790 PRINT "
5800 PRINT "
5810 PRINT "
5820 PRINT "
5830 PRINT "
5840 PRINT "
5850 PRINT "
5860 PRINT "
5870 PRINT "
5880 PRINT "
5890 PRINT "
5900 PRINT "
5910 PRINT "
5920 PRINT "
5930 PRINT "
5940 PRINT "
5950 PRINT "
5960 PRINT "
5970 PRINT "
5980 PRINT "
5990 PRINT "
6000 PRINT "
6010 PRINT "
6020 PRINT "
6030 PRINT "
6040 PRINT "
6050 PRINT "
6060 PRINT "
6070 PRINT "
6080 PRINT "
6090 PRINT "
6100 PRINT "
6110 PRINT "
6120 PRINT "
6130 PRINT "
6140 PRINT "
6150 PRINT "
6160 PRINT "
6170 PRINT "
6180 PRINT "
6190 PRINT "
6200 PRINT "
6210 PRINT "
6220 PRINT "
6230 PRINT "
6240 PRINT "
6250 PRINT "
6260 PRINT "
6270 PRINT "
6280 PRINT "
6290 PRINT "
6300 PRINT "
6310 PRINT "
6320 PRINT "
6330 PRINT "
6340 PRINT "
6350 PRINT "
6360 PRINT "
6370 PRINT "
6380 PRINT "
6390 PRINT "
6400 PRINT "
6410 PRINT "
6420 PRINT "
6430 PRINT "
6440 PRINT "
6450 PRINT "
6460 PRINT "
6470 PRINT "
6480 PRINT "
6490 PRINT "
6500 PRINT "
6510 PRINT "
6520 PRINT "
6530 PRINT "
6540 PRINT "
6550 PRINT "
6560 PRINT "
6570 PRINT "
6580 PRINT "
6590 PRINT "
6600 PRINT "
6610 PRINT "
6620 PRINT "
6630 PRINT "
6640 PRINT "
6650 PRINT "
6660 PRINT "
6670 PRINT "
6680 PRINT "
6690 PRINT "
6700 PRINT "
6710 PRINT "
6720 PRINT "
6730 PRINT "
6740 PRINT "
6750 PRINT "
6760 PRINT "
6770 PRINT "
6780 PRINT "
6790 PRINT "
6800 PRINT "
6810 PRINT "
6820 PRINT "
6830 PRINT "
6840 PRINT "
6850 PRINT "
6860 PRINT "
6870 PRINT "
6880 PRINT "
6890 PRINT "
6900 PRINT "
6910 PRINT "
6920 PRINT "
6930 PRINT "
6940 PRINT "
6950 PRINT "
6960 PRINT "
6970 PRINT "
6980 PRINT "
6990 PRINT "
7000 PRINT "
7010 PRINT "
7020 PRINT "
7030 PRINT "
7040 PRINT "
7050 PRINT "
7060 PRINT "
7070 PRINT "
7080 PRINT "
7090 PRINT "
7100 PRINT "
7110 PRINT "
7120 PRINT "
7130 PRINT "
7140 PRINT "
7150 PRINT "
7160 PRINT "
7170 PRINT "
7180 PRINT "
7190 PRINT "
7200 PRINT "
7210 PRINT "
7220 PRINT "
7230 PRINT "
7240 PRINT "
7250 PRINT "
7260 PRINT "
7270 PRINT "
7280 PRINT "
7290 PRINT "
7300 PRINT "
7310 PRINT "
7320 PRINT "
7330 PRINT "
7340 PRINT "
7350 PRINT "
7360 PRINT "
7370 PRINT "
7380 PRINT "
7390 PRINT "
7400 PRINT "
7410 PRINT "
7420 PRINT "
7430 PRINT "
7440 PRINT "
7450 PRINT "
7460 PRINT "
7470 PRINT "
7480 PRINT "
7490 PRINT "
7500 PRINT "
7510 PRINT "
7520 PRINT "
7530 PRINT "
7540 PRINT "
7550 PRINT "
7560 PRINT "
7570 PRINT "
7580 PRINT "
7590 PRINT "
7600 PRINT "
7610 PRINT "
7620 PRINT "
7630 PRINT "
7640 PRINT "
7650 PRINT "
7660 PRINT "
7670 PRINT "
7680 PRINT "
7690 PRINT "
7700 PRINT "
7710 PRINT "
7720 PRINT "
7730 PRINT "
7740 PRINT "
7750 PRINT "
7760 PRINT "
7770 PRINT "
7780 PRINT "
7790 PRINT "
7800 PRINT "
7810 PRINT "
7820 PRINT "
7830 PRINT "
7840 PRINT "
7850 PRINT "
7860 PRINT "
7870 PRINT "
7880 PRINT "
7890 PRINT "
7900 PRINT "
7910 PRINT "
7920 PRINT "
7930 PRINT "
7940 PRINT "
7950 PRINT "
7960 PRINT "
7970 PRINT "
7980 PRINT "
7990 PRINT "
8000 PRINT "
8010 PRINT "
8020 PRINT "
8030 PRINT "
8040 PRINT "
8050 PRINT "
8060 PRINT "
8070 PRINT "
8080 PRINT "
8090 PRINT "
8100 PRINT "
8110 PRINT "
8120 PRINT "
8130 PRINT "
8140 PRINT "
8150 PRINT "
8160 PRINT "
8170 PRINT "
8180 PRINT "
8190 PRINT "
8200 PRINT "
8210 PRINT "
8220 PRINT "
8230 PRINT "
8240 PRINT "
8250 PRINT "
8260 PRINT "
8270 PRINT "
8280 PRINT "
8290 PRINT "
8300 PRINT "
8310 PRINT "
8320 PRINT "
8330 PRINT "
8340 PRINT "
8350 PRINT "
8360 PRINT "
8370 PRINT "
8380 PRINT "
8390 PRINT "
8400 PRINT "
8410 PRINT "
8420 PRINT "
8430 PRINT "
8440 PRINT "
8450 PRINT "
8460 PRINT "
8470 PRINT "
8480 PRINT "
8490 PRINT "
8500 PRINT "
8510 PRINT "
8520 PRINT "
8530 PRINT "
8540 PRINT "
8550 PRINT "
8560 PRINT "
8570 PRINT "
8580 PRINT "
8590 PRINT "
8600 PRINT "
8610 PRINT "
8620 PRINT "
8630 PRINT "
8640 PRINT "
8650 PRINT "
8660 PRINT "
8670 PRINT "
8680 PRINT "
8690 PRINT "
8700 PRINT "
8710 PRINT "
8720 PRINT "
8730 PRINT "
8740 PRINT "
8750 PRINT "
8760 PRINT "
8770 PRINT "
8780 PRINT "
8790 PRINT "
8800 PRINT "
8810 PRINT "
8820 PRINT "
8830 PRINT "
8840 PRINT "
8850 PRINT "
8860 PRINT "
8870 PRINT "
8880 PRINT "
8890 PRINT "
8900 PRINT "
8910 PRINT "
8920 PRINT "
8930 PRINT "
8940 PRINT "
8950 PRINT "
8960 PRINT "
8970 PRINT "
8980 PRINT "
8990 PRINT "
9000 PRINT "
9010 PRINT "
9020 PRINT "
9030 PRINT "
9040 PRINT "
9050 PRINT "
9060 PRINT "
9070 PRINT "
9080 PRINT "
9090 PRINT "
9100 PRINT "
9110 PRINT "
9120 PRINT "
9130 PRINT "
9140 PRINT "
9150 PRINT "
9160 PRINT "
9170 PRINT "
9180 PRINT "
9190 PRINT "
9200 PRINT "
9210 PRINT "
9220 PRINT "
9230 PRINT "
9240 PRINT "
9250 PRINT "
9260 PRINT "
9270 PRINT "
9280 PRINT "
9290 PRINT "
9300 PRINT "
9310 PRINT "
9320 PRINT "
9330 PRINT "
9340 PRINT "
9350 PRINT "
9360 PRINT "
9370 PRINT "
9380 PRINT "
9390 PRINT "
9400 PRINT "
9410 PRINT "
9420 PRINT "
9430 PRINT "
9440 PRINT "
9450 PRINT "
9460 PRINT "
9470 PRINT "
9480 PRINT "
9490 PRINT "
9500 PRINT "
9510 PRINT "
9520 PRINT "
9530 PRINT "
9540 PRINT "
9550 PRINT "
9560 PRINT "
9570 PRINT "
9580 PRINT "
9590 PRINT "
9600 PRINT "
9610 PRINT "
9620 PRINT "
9630 PRINT "
9640 PRINT "
9650 PRINT "
9660 PRINT "
9670 PRINT "
9680 PRINT "
9690 PRINT "
9700 PRINT "
9710 PRINT "
9720 PRINT "
9730 PRINT "
9740 PRINT "
9750 PRINT "
9760 PRINT "
9770 PRINT "
9780 PRINT "
9790 PRINT "
9800 PRINT "
9810 PRINT "
9820 PRINT "
9830 PRINT "
9840 PRINT "
9850 PRINT "
9860 PRINT "
9870 PRINT "
9880 PRINT "
9890 PRINT "
9900 PRINT "
9910 PRINT "
9920 PRINT "
9930 PRINT "
9940 PRINT "
9950 PRINT "
9960 PRINT "
9970 PRINT "
9980 PRINT "
9990 PRINT "
10000 PRINT "
10010 PRINT "
10020 PRINT "
10030 PRINT "
10040 PRINT "
10050 PRINT "
10060 PRINT "
10070 PRINT "
10080 PRINT "
10090 PRINT "
10100 PRINT "
10110 PRINT "
10120 PRINT "
10130 PRINT "
10140 PRINT "
10150 PRINT "
10160 PRINT "
10170 PRINT "
10180 PRINT "
10190 PRINT "
10200 PRINT "
10210 PRINT "
10220 PRINT "
10230 PRINT "
10240 PRINT "
10250 PRINT "
10260 PRINT "
10270 PRINT "
10280 PRINT "
10290 PRINT "
10300 PRINT "
10310 PRINT "
10320 PRINT "
10330 PRINT "
10340 PRINT "
10350 PRINT "
10360 PRINT "
10370 PRINT "
10380 PRINT "
10390 PRINT "
10400 PRINT "
10410 PRINT "
10420 PRINT "
10430 PRINT "
10440 PRINT "
10450 PRINT "
10460 PRINT "
10470 PRINT "
10480 PRINT "
10490 PRINT "
10500 PRINT "
10510 PRINT "
10520 PRINT "
10530 PRINT "
10540 PRINT "
10550 PRINT "
10560 PRINT "
10570 PRINT "
10580 PRINT "
10590 PRINT "
10600 PRINT "
10610 PRINT "
10620 PRINT "
10630 PRINT "
10640 PRINT "
10650 PRINT "
10660 PRINT "
10670 PRINT "
10680 PRINT "
10690 PRINT "
10700 PRINT "
10710 PRINT "
10720 PRINT "
10730 PRINT "
10740 PRINT "
10750 PRINT "
10760 PRINT "
10770 PRINT "
10780 PRINT "
10790 PRINT "
10800 PRINT "
10810 PRINT "
10820 PRINT "
10830 PRINT "
10840 PRINT "
10850 PRINT "
10860 PRINT "
10870 PRINT "
10880 PRINT "
10890 PRINT "
10900 PRINT "
10910 PRINT "
10920 PRINT "
10930 PRINT "
10940 PRINT "
10950 PRINT "
10960 PRINT "
10970 PRINT "
10980 PRINT "
10990 PRINT "
11000 PRINT "
11010 PRINT "
11020 PRINT "
11030 PRINT "
11040 PRINT "
11050 PRINT "
11060 PRINT "
11070 PRINT "
11080 PRINT "
11090 PRINT "
11100 PRINT "
11110 PRINT "
11120 PRINT "
11130 PRINT "
11140 PRINT "
11150 PRINT "
11160 PRINT "
11170 PRINT "
11180 PRINT "
11190 PRINT "
11200 PRINT "
11210 PRINT "
11220 PRINT "
11230 PRINT "
11240 PRINT "
11250 PRINT "
11260 PRINT "
11270 PRINT "
11280 PRINT "
11290 PRINT "
11300 PRINT "
11310 PRINT "
11320 PRINT "
11330 PRINT "
11340 PRINT "
11350 PRINT "
11360 PRINT "
11370 PRINT "
11380 PRINT "
11390 PRINT "
11400 PRINT "
11410 PRINT "
11420 PRINT "
11430 PRINT "
11440 PRINT "
11450 PRINT "
11460 PRINT "
11470 PRINT "
11480 PRINT "
11490 PRINT "
11500 PRINT "
11510 PRINT "
11520 PRINT "
11530 PRINT "
11540 PRINT "
11550 PRINT "
11560 PRINT "
11570 PRINT "
11580 PRINT "
11590 PRINT "
11600 PRINT "
11610 PRINT "
11620 PRINT "
11630 PRINT "
11640 PRINT "
11650 PRINT "
11660 PRINT "
11670 PRINT "
11680 PRINT "
11690 PRINT "
11700 PRINT "
11710 PRINT "
11720 PRINT "
11730 PRINT "
11740 PRINT "
11750 PRINT "
11760 PRINT "
11770 PRINT "
11780 PRINT "
11790 PRINT "
11800 PRINT "
11810 PRINT "
11820 PRINT "
11830 PRINT "
11840 PRINT "
11850 PRINT "
11860 PRINT "
11870 PRINT "
11880 PRINT "
11890 PRINT "
11900 PRINT "
11910 PRINT "
11920 PRINT "
11930 PRINT "
11940 PRINT "
11950 PRINT "
11960 PRINT "
11970 PRINT "
11980 PRINT "
11990 PRINT "
12000 PRINT "
12010 PRINT "
12020 PRINT "
12030 PRINT "
12040 PRINT "
12050 PRINT "
12060 PRINT "
12070 PRINT "
12080 PRINT "
12090 PRINT "
12100 PRINT "
12110 PRINT "
12120 PRINT "
12130 PRINT "
12140 PRINT "
12150 PRINT "
12160 PRINT "
12170 PRINT "
12180 PRINT "
12190 PRINT "
12200 PRINT "
12210 PRINT "
12220 PRINT "
12230 PRINT "
12240 PRINT "
12250 PRINT "
12260 PRINT "
12270 PRINT "
12280 PRINT "
12290 PRINT "
12300 PRINT "
12310 PRINT "
12320 PRINT "
12330 PRINT "
12340 PRINT "
12350 PRINT "
12360 PRINT "
12370 PRINT "
12380 PRINT "
12390 PRINT "
12400 PRINT "
12410 PRINT "
12420 PRINT "
12430 PRINT "
12440 PRINT "
12450 PRINT "
12460 PRINT "
12470 PRINT "
12480 PRINT "
12490 PRINT "
12500 PRINT "
12510 PRINT "
12520 PRINT "
12530 PRINT "
12540 PRINT "
12550 PRINT "
12560 PRINT "
12570 PRINT "
12580 PRINT "
12590 PRINT "
12600 PRINT "
12610 PRINT "
12620 PRINT "
12630 PRINT "
12640 PRINT "
12650 PRINT "
12660 PRINT "
12670 PRINT "
12680 PRINT "
12690 PRINT "
12700 PRINT "
12710 PRINT "
12720 PRINT "
12730 PRINT "
12740 PRINT "
12750 PRINT "
12760 PRINT "
12770 PRINT "
12780 PRINT "
12790 PRINT "
12800 PRINT "
12810 PRINT "
12820 PRINT "
12830 PRINT "
12840 PRINT "
12850 PRINT "
12860 PRINT "
12870 PRINT "
12880 PRINT "
12890 PRINT "
12900 PRINT "
12910 PRINT "
12920 PRINT "
12930 PRINT "
12940 PRINT "
12950 PRINT "
12960 PRINT "
12970 PRINT "
12980 PRINT "
12990 PRINT "
13000 PRINT "
13010 PRINT "
13020 PRINT "
13030 PRINT "
13040 PRINT "
13050 PRINT "
13060 PRINT "
13070 PRINT "
13080 PRINT "
13090 PRINT "
13100 PRINT "
13110 PRINT "
13120 PRINT "
13130 PRINT "
13140 PRINT "
13150 PRINT "
13160 PRINT "
13170 PRINT "
13180 PRINT "
13190 PRINT "
13200 PRINT "
13210 PRINT "
13220 PRINT "
13230 PRINT "
13240 PRINT "
13250 PRINT "
13260 PRINT "
13270 PRINT "
13280 PRINT "
13290 PRINT "
13300 PRINT "
13310 PRINT "
13320 PRINT "
13330 PRINT "
13340 PRINT "
13350 PRINT "
13360 PRINT "
13370 PRINT "
13380 PRINT "
13390 PRINT "
13400 PRINT "
13410 PRINT "
13420 PRINT "
13430 PRINT "
13440 PRINT "
13450 PRINT "
13460 PRINT "
13470 PRINT "
13480 PRINT "
13490 PRINT "
13500 PRINT "
13510 PRINT "
13520 PRINT "
13530 PRINT "
13540 PRINT "
13550 PRINT "
13560 PRINT "
13570 PRINT "
13580 PRINT "
13590 PRINT "
13600 PRINT "
13610 PRINT "
13620 PRINT "
13630 PRINT "
13640 PRINT "
13650 PRINT "
13660 PRINT "
13670 PRINT "
13680 PRINT "
13690 PRINT "
13700 PRINT "
13710 PRINT "
13720 PRINT "
13730 PRINT "
13740 PRINT "
13750 PRINT "
13760 PRINT "
13770 PRINT "
13780 PRINT "
13790 PRINT "
13800 PRINT "
13810 PRINT "
13820 PRINT "
13830 PRINT "
13840 PRINT "
13850 PRINT "
13860 PRINT "
13870 PRINT "
13880 PRINT "
13890 PRINT "
13900 PRINT "
13910 PRINT "
13920 PRINT "
13930 PRINT "
13940 PRINT "
13950 PRINT "
13960 PRINT "
13970 PRINT "
13980 PRINT "
13990 PRINT "
14000 PRINT "
14010 PRINT "
14020 PRINT "
14030 PRINT "
14040 PRINT "
14050 PRINT "
14060 PRINT "
14070 PRINT "
14080 PRINT "
14090 PRINT "
14100 PRINT "
14110 PRINT "
14120 PRINT "
14130 PRINT "
14140 PRINT "
14150 PRINT "
14160 PRINT "
14170 PRINT "
14180 PRINT "
14190 PRINT "
14200 PRINT "
14210 PRINT "
14220 PRINT "
14230 PRINT "
14240 PRINT "
14250 PRINT "
14260 PRINT "
14270 PRINT "
14280 PRINT "
14290 PRINT "
14300 PRINT "
14310 PRINT "
14320 PRINT "
14330 PRINT "
14340 PRINT "
14350 PRINT "
14360 PRINT "
14370 PRINT "
14380 PRINT "
14390 PRINT "
14400 PRINT "
14410 PRINT "
14420 PRINT "
14430 PRINT "
14440 PRINT "
14450 PRINT "
14460 PRINT "
14470 PRINT "
14480 PRINT "
14490 PRINT "
14500 PRINT "
14510 PRINT "
14520 PRINT "
14530 PRINT "
14540 PRINT "
14550 PRINT "
14560 PRINT "
14570 PRINT "
14580 PRINT "
14590 PRINT "
14600 PRINT "
14610 PRINT "
14620 PRINT "
14630 PRINT "
14640 PRINT "
14650 PRINT "
14660 PRINT "
14670 PRINT "
14680 PRINT "
14690 PRINT "
14700 PRINT "
14710 PRINT "
14720 PRINT "
14730 PRINT "
14740 PRINT "
14750 PRINT "
14760 PRINT "
14770 PRINT "
14780 PRINT "
14790 PRINT "
14800 PRINT "
14810 PRINT "
14820 PRINT "
14830 PRINT "
14840 PRINT "
14850 PRINT "
14860 PRINT "
14870 PRINT "
14880 PRINT "
14890 PRINT "
14900 PRINT "
14910 PRINT "
14920 PRINT "
14930 PRINT "
14940 PRINT "
14950 PRINT "
14960 PRINT "
14970 PRINT "
14980 PRINT "
14990 PRINT "
15000 PRINT "
15010 PRINT "
15020 PRINT "
15030 PRINT "
15040 PRINT "
15050 PRINT "
15060 PRINT "
15070 PRINT "
15080 PRINT "
15090 PRINT "
15100 PRINT "
15110 PRINT "
15120 PRINT "
15130 PRINT "
15140 PRINT "
15150 PRINT "
15160 PRINT "
15170 PRINT "
15180 PRINT "
15190 PRINT "
15200 PRINT "
15210 PRINT "
15220 PRINT "
15230 PRINT "
15240 PRINT "
15250 PRINT "
15260 PRINT "
15270 PRINT "
15280 PRINT "
15290 PRINT "
15300 PRINT "
15310 PRINT "
15320 PRINT "
15330 PRINT "
15340 PRINT "
15350 PRINT "
15360 PRINT "
15370 PRINT "
15380 PRINT "
15390 PRINT "
15400 PRINT "
15410 PRINT "
15420 PRINT "
15430 PRINT "
15440 PRINT "
15450 PRINT "
15460 PRINT "
15470 PRINT "
15480 PRINT "
15490 PRINT "
15500 PRINT "
15510 PRINT "
15520 PRINT "
15530 PRINT "
15540 PRINT "
15550 PRINT "
15560 PRINT "
15570 PRINT "
15580 PRINT "
15590 PRINT "
15600 PRINT "
15610 PRINT "
15620 PRINT "
15630 PRINT "
15640 PRINT "
15650 PRINT "
15660 PRINT "
15670 PRINT "
15680 PRINT "
15690 PRINT "
15700 PRINT "
15710 PRINT "
15720 PRINT "
15730 PRINT "
15740 PRINT "
15750 PRINT "
15760 PRINT "
15770 PRINT "
15780 PRINT "
15790 PRINT "
15800 PRINT "
15810 PRINT "
15820 PRINT "
15830 PRINT "
15840 PRINT "
15850 PRINT "
15860 PRINT "
15870 PRINT "
15880 PRINT "
15890 PRINT "
15900 PRINT "
15910 PRINT "
15920 PRINT "
15930 PRINT "
15940 PRINT "
15950 PRINT "
15960 PRINT "
15970 PRINT "
15980 PRINT "
15990 PRINT "
16000 PRINT "
16010 PRINT "
16020 PRINT "
16030 PRINT "
16040 PRINT "
16050 PRINT "
16060 PRINT "
16070 PRINT "
16080 PRINT "
16090 PRINT "
16100 PRINT "
16110 PRINT "
16120 PRINT "
16130 PRINT "
16140 PRINT "
16150 PRINT "
16160 PRINT "
16170 PRINT "
16180 PRINT "
16190 PRINT "
16200 PRINT "
16210 PRINT "
16220 PRINT "
16230 PRINT "
16240 PRINT "
16250 PRINT "
16260 PRINT "
16270 PRINT "
16280 PRINT
```



March 22, 1990



Mr. Fred Stern
214 Roberts Street
Holbrook, NY 11741

EDITORS NOTE:
OUR APRIL MEETING
WILL BE HELD HERE

F Stern
Listing Editor

Dear Fred,

The Woodbury Nursing Home, 8533 Jericho Turnpike, NY, has agreed to allow us to hold our April 22nd LIST meeting in one of their Recreation rooms. In fact, they will provide coffee for our group and stated that we can hold monthly meetings at their facility if we would like.

Ms. Kim Gidia (pronounced Joya) is responsible for recreational activities for their residents and feels that computers may have a therapeutic value for their residents and has asked us for help to guide them in this endeavor. Bob Malloy, Fred Stern and myself will provide computers and provide a demonstration for Ms. Gidia.

Please ATTEND this meeting! Hugo is looking forward to seeing each of you - and perhaps some of you can provide our host with some worthwhile suggestions for them in the use of computers or any other vehicle towards aiding their residents.

*LIST Meeting - Sunday, April 22nd, 1990 - Woodbury Nursing Home, 8533 Jericho Turnpike, NY. Tel - 516-692-4100.

The best way there is to take any of the major parkways (LIE, No. State or So. State pkwys) to the Seaford/Oyster Bay Expressway heading north and exit at 25A East (Jericho Tpk), for approximately 1.7 miles on Jericho Tpk. When you pass Woodbury Common, the location will be only a few 10ths of a mile further, on the left-hand side of the road. There is ample parking at the rear of the Woodbury Nursing Home.

If you require any additional information, contact me by telephone: 516-541-2271.

Fred, perhaps we could send Ms. Gidia a copy of this LIST newsletter.

Regards

Bob Gilder
Bob Gilder